Year 'round Insulation

KIMBATTS

TRADE-MARK REG. U. S. PATS. NOS. 1771150 AND 1878300

THE PERFECT YEAR 'ROUND

Building Insulation

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KIMBERLY-CLARK CORPORATION
ESTABLISHED 1872
KIMBATTS DIVISION • NIAGARA FALLS, NEW YORK

The cleanliness of handling Kimbatts will be apparent when you see and feel them.

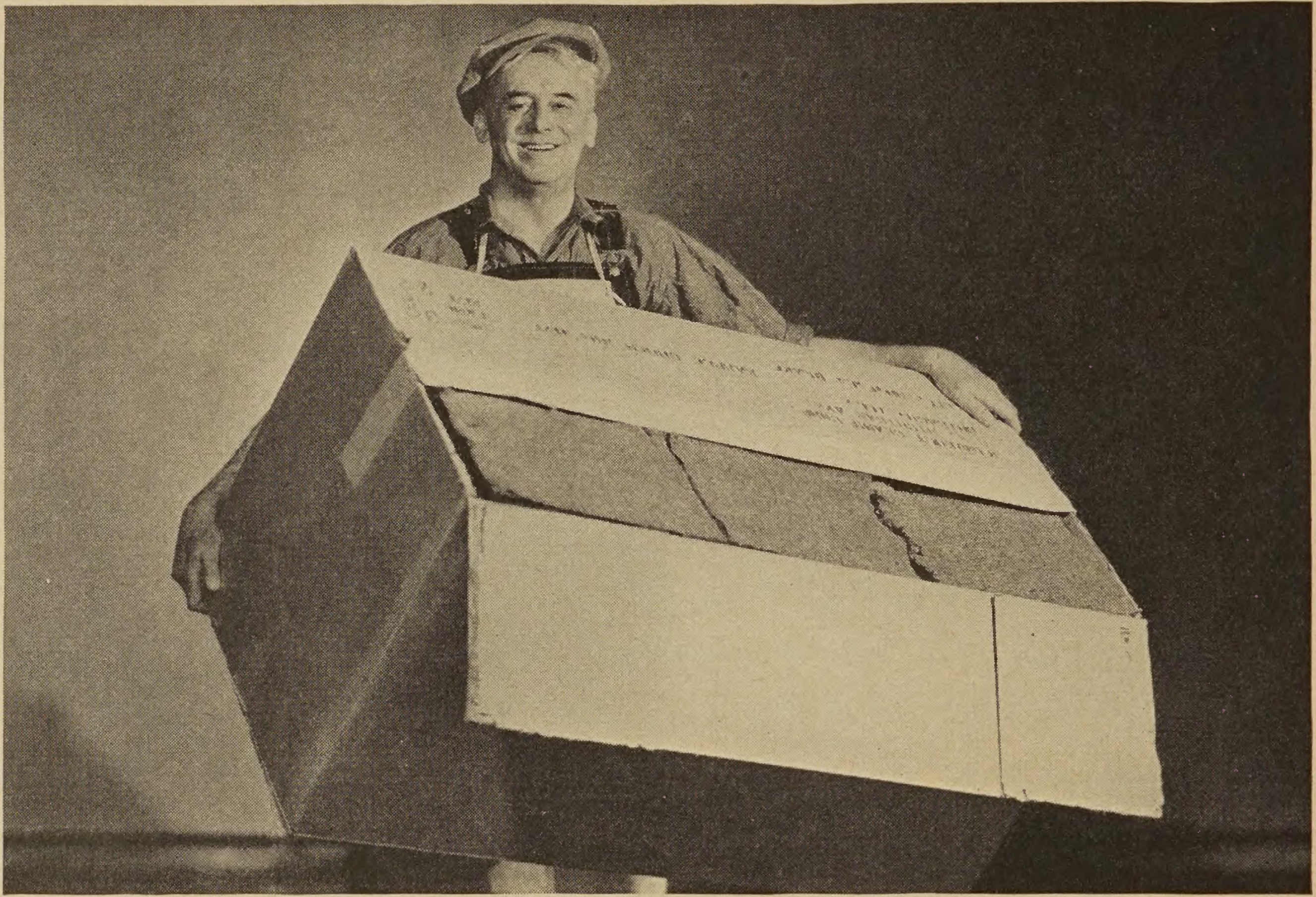
That any insulation could be so soft; flexible, yet firm; so clean and easy to install; so economical, and still provide such perfect insulation the year 'round has been the wonder of home owners and builders alike.

A FEW WORDS ABOUT INSULATION

Perfect temperature the year 'round is found in few places on the earth. From earliest man, people have sought to moderate the cold of winter and temper the summer heat. The native in equatorial Africa covers his dwelling with a thick layer of leaves to keep out the heat, while the Eskimo builds a thick-walled igloo to keep the heat within.

The Kimberly-Clark Corporation, established in 1872, has pioneered in research and manufacture of wood fibre products. For five years Kimberly-Clark has experimented with a new material for insulation. Rigid laboratory tests, followed by many installations in new and old houses, proved that the nearest approach to a perfect year 'round insulation had been achieved. Kimberly-Clark engineers were not content with a material that would simply prevent the escape of warmth from the heated house in cold weather. They produced Kimbatts, an insulation that would also keep out the heat of the blazing sun, making year 'round comfort and more healthy living for all the family.

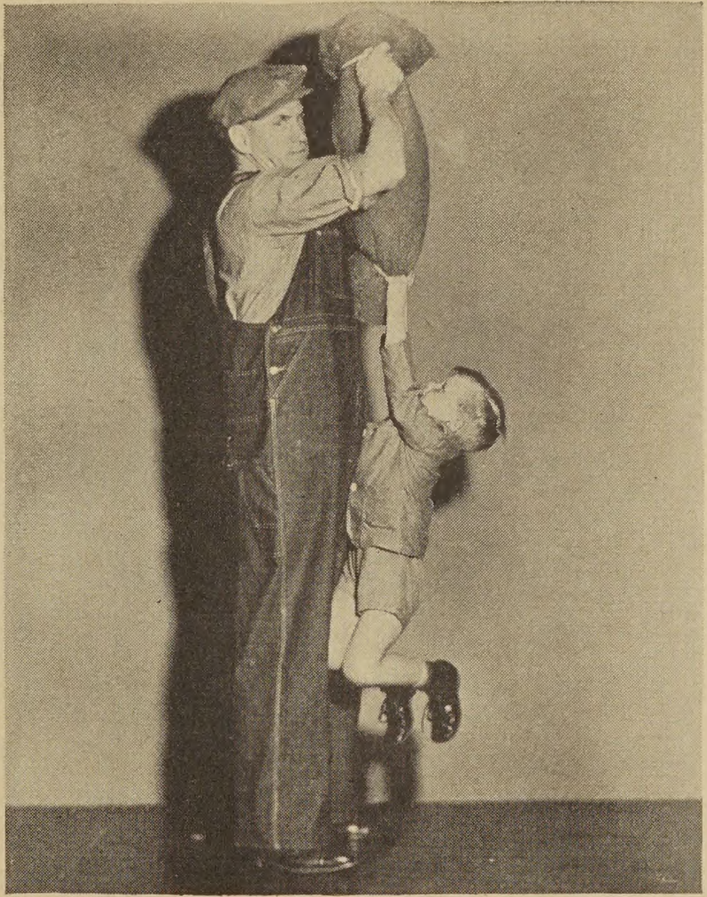
LIGHT IN WEIGHT



Kimbatts are light in weight, clean and easy to handle. Each shipping carton contains 50 square feet, which weigh only 25 pounds.

MUCH TENSILE STRENGTH

An appreciated feature about Kimbatts is that even though light, they are exceptionally strong due to the cohesiveness of their 100 or more individual layers of heat stoppers. This strength helps make Kimbatts the ideal insulation material. For, subjected to stress, occurring when walls settle, Kimbatts will not tear or pull away from the studding. Thus there are no cold spots in a Kimbatt insulated house because there are no breaks through which heat will escape.



The elasticity in Kimbatts springs them back to original shape when compressed or stretched.

MILLIONS OF AIR CELLS

Low density is the reason for Kimbatts' lightness and efficiency.

Though weighing less than 1 pound, each Kimbatt is 3⅝ inches thick, and is made up of approximately one hundred layers of heat stoppers. Thus each batt contains literally millions of air cells. If Kimbatts were compressed to an inch or a half-inch thickness they wouldn't have nearly the insulation quality. To illustrate: The feathers of an eiderdown duck weigh but a few ounces, yet an arctic temperature of fifty degrees below zero doesn't chill its delicate body. An elephant has a hide two inches thick, weighing hundreds of pounds, yet he would freeze to death in a Minneapolis winter.

WARMTH WITHOUT WEIGHT

This boy is holding four pounds of Kimbatts, 400 layers of "heat stoppers" and about forty million air cells.

MINIMUM LABOR COSTS

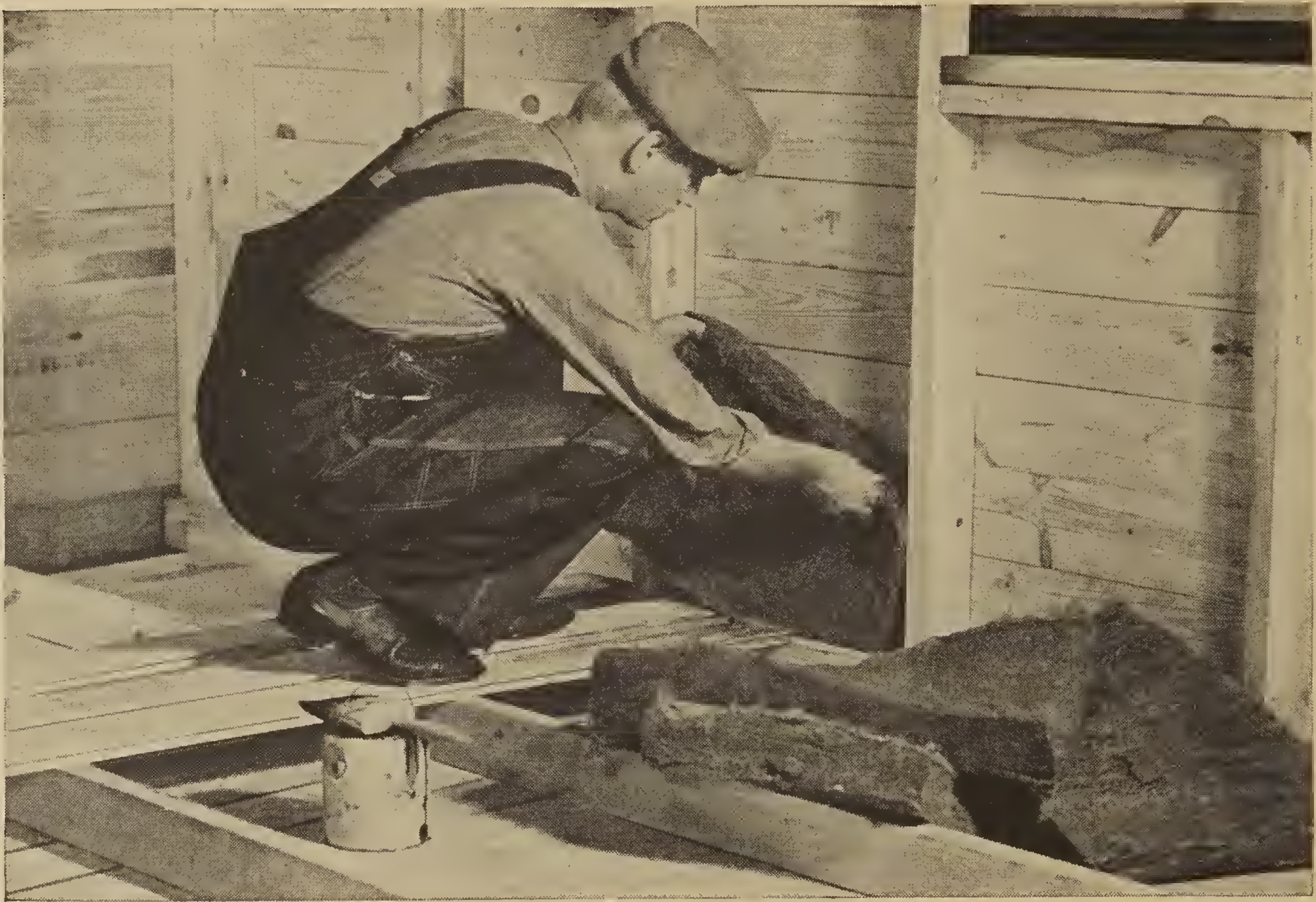
Easy enough to cut, but on most jobs very little cutting need be done.

Kimbatts are fifteen by twenty-three inches and three and five-eighths inches thick. The space between standard studding is twenty-two inches. So these batts fit snugly and remain in place. Where spaces to be filled are smaller or irregular in shape the batts can be quickly cut to the desired size.

TEARS READILY

With the grain Kimbatts can be torn, permitting the filling of every "nook and cranny."

START AT THE BOTTOM



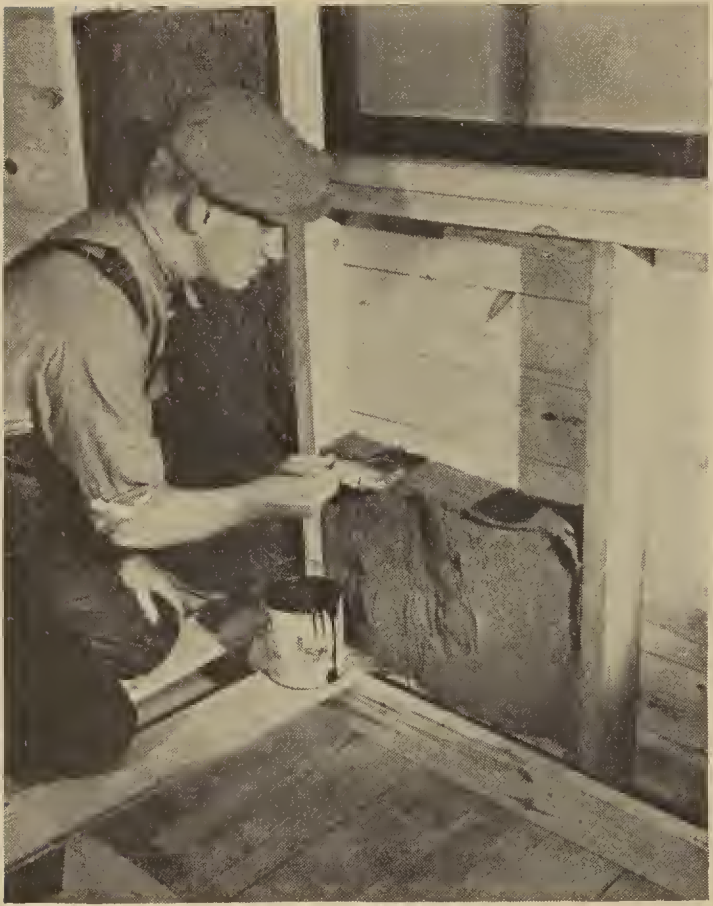
In wall insulation the first batt is placed between studding at the floor line.

FINISH AT THE TOP

After the first of the Kimbatts is placed, making certain that it is well down against the bottom or floor plate, batts are put in to fill the space between studs, from floor to ceiling. Do not force them down too hard—just make sure of snug contact. In placing the top batt it may be necessary to cut off a few inches.

Kimbatts are 23 inches wide, assuring tight fit between standard studding.

DAUB WITH ASPHALT



No amount of heavy truck traffic even on rough cobblestone pavement will ever cause Kimbatts to settle or pull out of position.

Almost any kind of "cut back," "roofing cement" or asphalt, can be used when placing Kimbatts for walls or roof insulation. A couple of daubs are put on the top of the underneath batt and on the studding as shown on page opposite. Follow this procedure until the top of the space or header is reached. Then daub the top of the last batt, or piece, and press it into place.

DAUB STUDDING ALSO

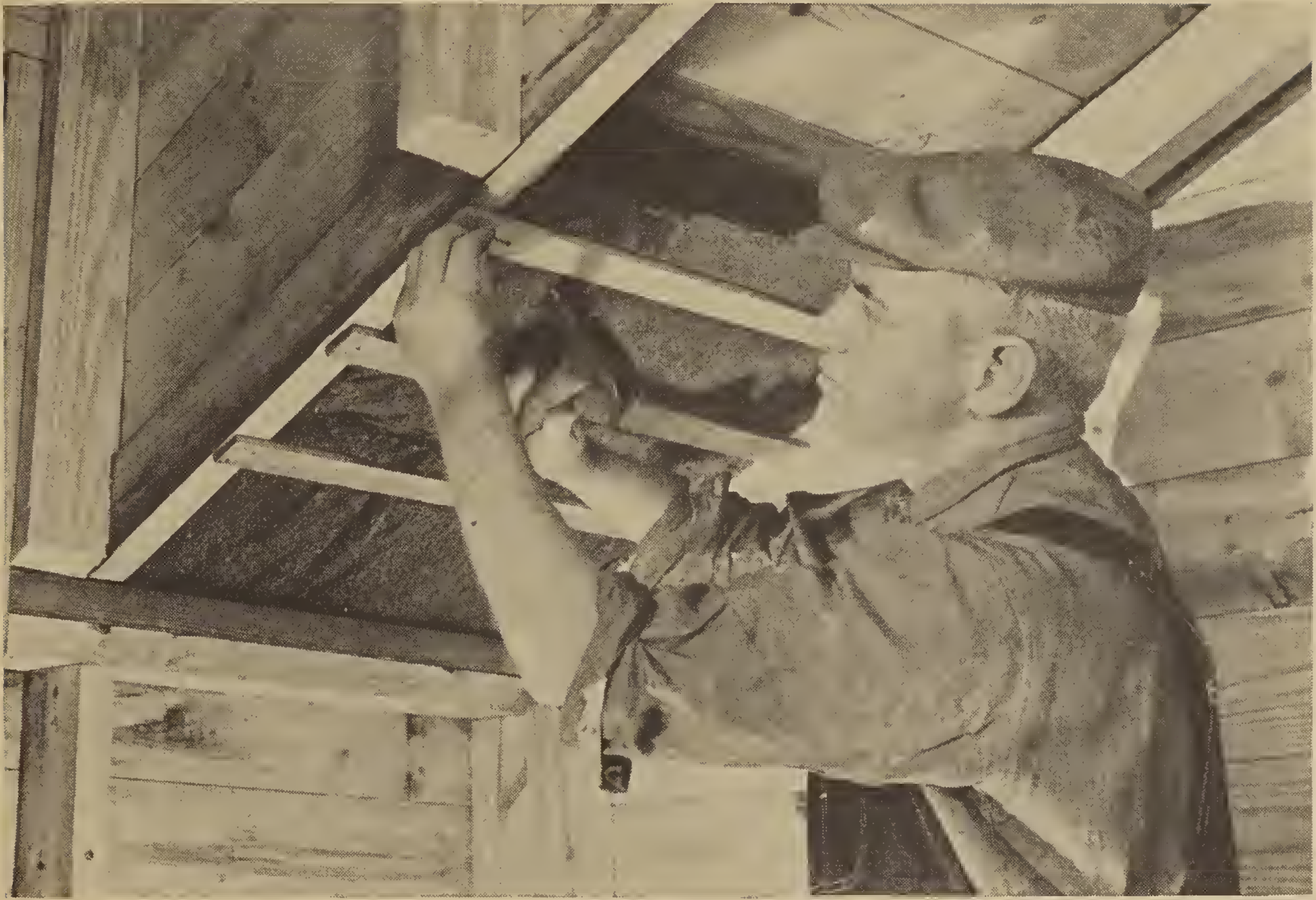
Any kind of a three or four-inch brush will do for this work.

INSULATING THE ATTIC

See photograph on page 34 showing use of empty cartons.

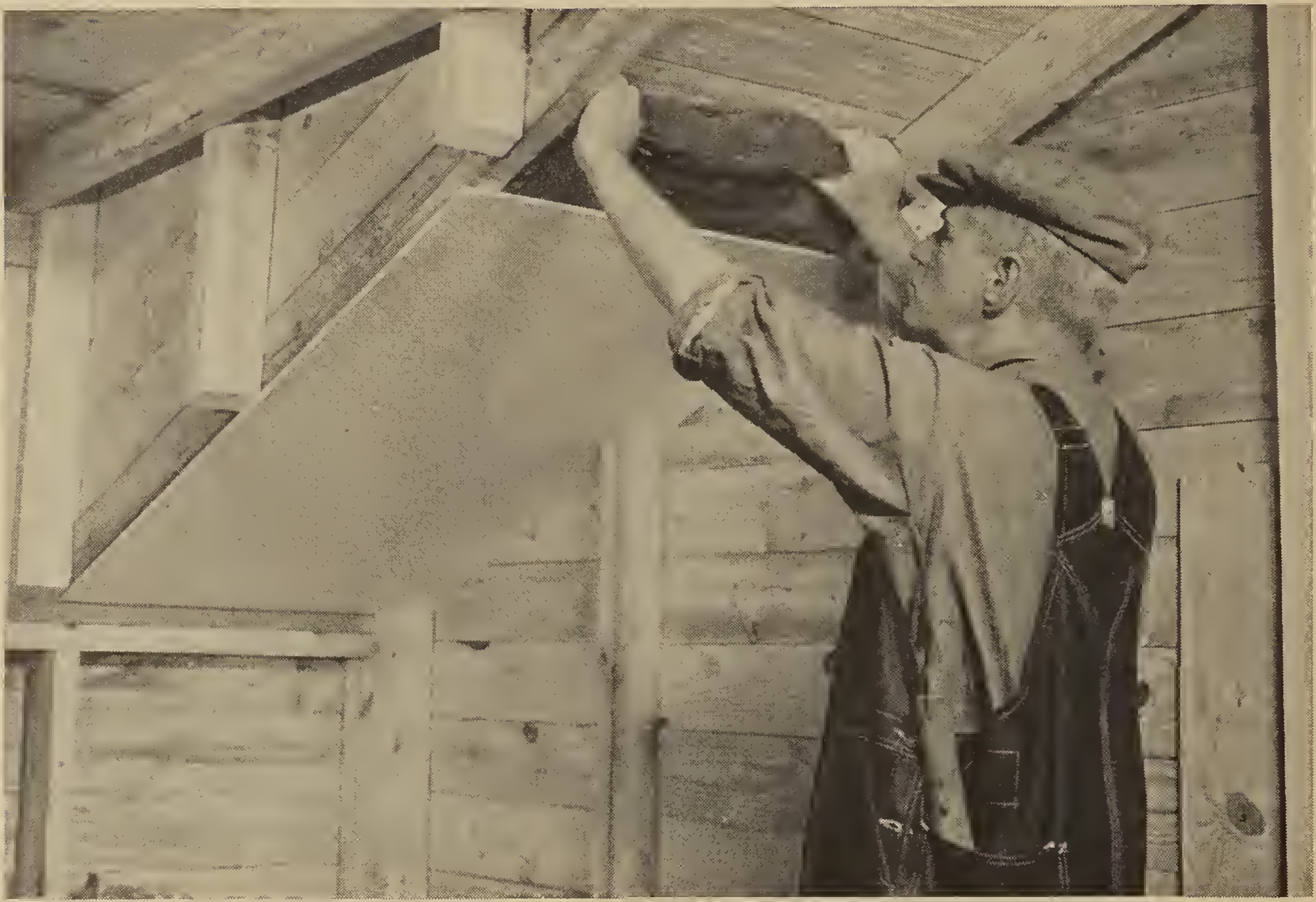
From fifty to seventy-five per cent of the heat in a house escapes through the roof. To hold in the heat—so that it will spread around the lower rooms—is the purpose of roof insulation. Old houses can be insulated throughout but the expense of tearing down the inside finish is frequently more than the budget will permit. Roof insulation with Kimbatts is quickly accomplished and the small outlay of money is only temporary as it will soon be returned to you in savings on fuel cost. Attic floor or roof insulation makes homes comfortable in summer by stopping the heat from the direct rays of the sun.

LATHS ACROSS RAFTERS



In many instances, where attic is not to be finished, carpenters use laths or chicken wire to hold Kimbatts in place.

OR COMPOSITION BOARD



You need not use either laths or boards if you follow the suggestion on page 34.

INSULATING THE ATTIC FLOOR

If your attic floor is unfinished, a simple, inexpensive, quick, yet effective job of insulation can be done: Lay Kimbatts between the joists, edge to edge, until all spaces are filled. No tools, nails or other material required but a little tighter result can be assured if edges which come in contact with each other are daubed with asphalt as explained on page 12. A job of this kind can be completed in a few hours. From the minute the last batt is laid, you will burn less fuel; and in summer the scorching heat of the sun will be stopped then and there.

Imagine a hundred warm, downy quilts, folded and laid close together over your ceiling.

SIMPLEST—MOST INEXPENSIVE

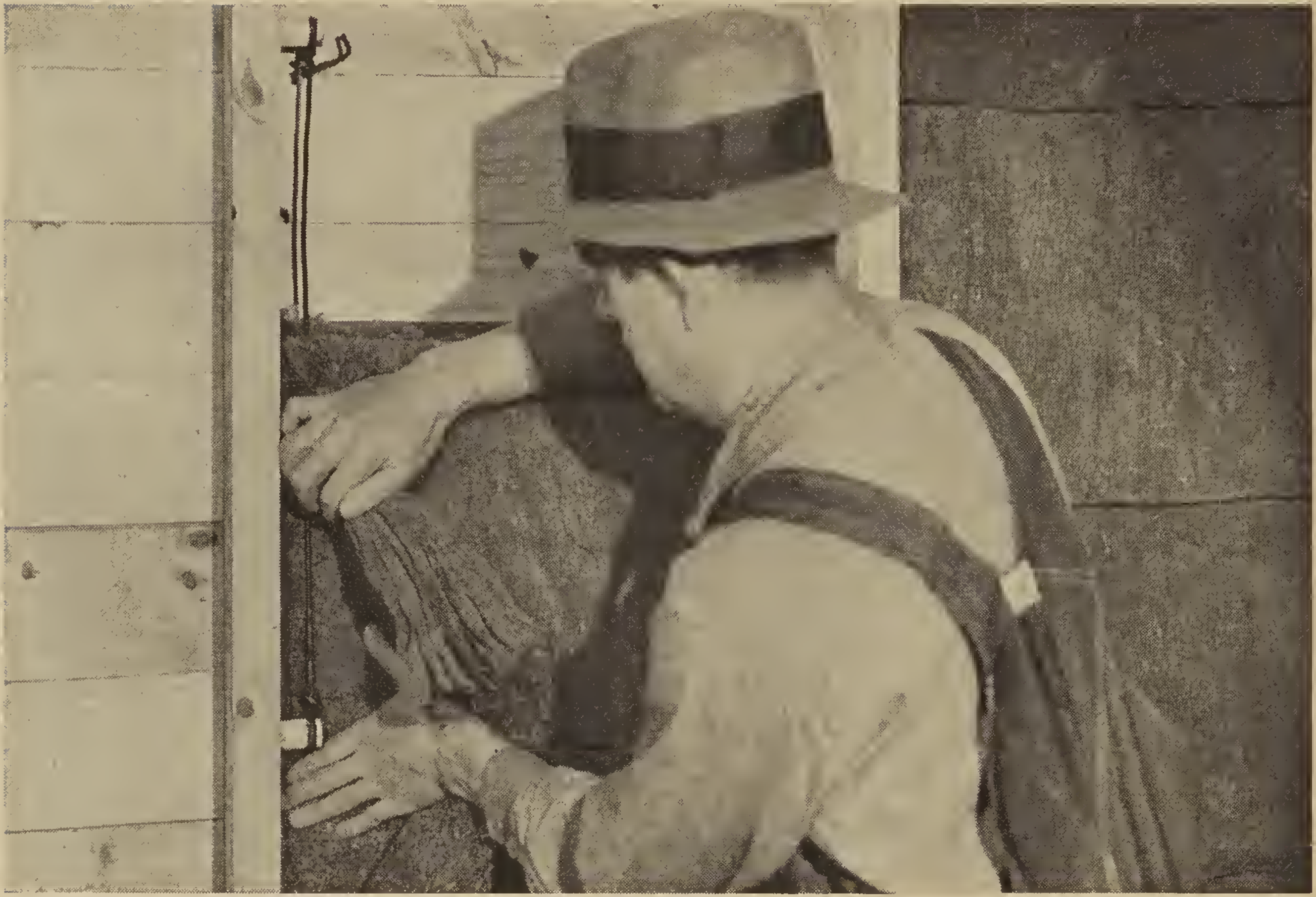
The top ceiling of the average seven-room house can be Kimbatts-insulated with very little labor costs.

FILLS CORNERS AND NICHES

In some houses, even though insulated, there are what people call "cold spots"—places where the temperature is several degrees lower than in other parts of the room. Faulty insulation is responsible. When the job was done all spaces were not filled. With Kimbatts the smallest kind of opening, where heat might flow out or cold seep in, is quickly "plugged." Wires, pipes or other obstructions can be immediately encased or covered. Tests made with nine thermometers in a five-room house showed even distribution of heat throughout and only two degrees difference between a thermometer on a weather-exposed wall and one hung on an inside partition on the opposite side of the room.

When filling large niches use asphalt cement to hold more securely.

TUCKS AROUND OBSTRUCTIONS



Part the layers of Kimbatts and tuck behind and in front of wiring like the above. Wires should be standard insulation wound.

PROVED IN LABORATORY

In the laboratories of leading institutions, Kimbatts were subjected to the most complete and rigorous series of experiments that could be devised to determine their resistance to fire, water, insect attacks and to establish their efficiency in stopping the transmission of heat and cold. On the following pages the results of these tests, that established for all time the worthiness of Kimbatts to safeguard your home and family, are published.

A wall section filled with Kimbatts was jolted up and down one million times without causing the batts to fall even a fraction of an inch.

Tests proved that Kimbatts wouldn't settle.

SCIENTIFIC EXPERIMENTS

Insects were found to kill and eat other insects rather than to feed on Kimbatts.

The resistance of Kimbatts to vermin was checked and reported by the laboratories of universities nationally known for agricultural and entomological research. One professor wrote: "I am now prepared to make my final report on the tests with the insulation material and believe that this material is resistant to all types of insects which ordinarily feed upon foodstuffs. My tests include cockroaches, saw-toothed grain beetles, silver fish, meal worms, and book lice. All of these have died without consuming any food with the exception of a very small amount by one of the meal worms. This specimen, however, died after three weeks of confinement."

PROVE CONCLUSIVELY

Mice refused to feed on Kimbatts and found the chemicals which impregnate this insulation very objectionable.

HEAT AND COLD STOPPED

Most sensational of all were the reports on tests which gauged Kimbatts resistance to heat and cold transmission . . . They prove that modern Kimbatts insulated homes are better protected against the elements than were old feudal castles of massive construction.

Thickness of Various Materials required to equal Thermal Resistance of 3–5/8 in. Kimbatts in average wall. Kimbatts' "K" is 0.255.*

Insulant	"K"*	Thickness Required
Blanket type insulation	0.27	3–27/32 in.
Cork Board insulation	0.32	4–9/16 in.
Wall Board	0.33	4–11/16 in.
Yellow Pine or Fir	0.80	11–3/8 in.
Maple or Oak	1.15	1 ft. 4–11/32 in.
Plaster (Gypsum)	3.30	3 ft. 10–13/16 in.
Common Brick	5.00	5 ft. 11 in.
Face Brick	9.20	10 ft. 10–1/2 in.
Slate	10.37	12 ft. 3 in.
Stone, Tile, or Stucco	12.00	14 ft. 2–1/2 in.
Concrete	13.00	15 ft. 4–19/32 in.

*"K" means the amount of heat measured in B.T.U's. transmitted by one square foot of insulating material 1-inch in thickness per hour, per degree difference in inside and outside temperature.

Calculations in above table obtained by methods used in 1934 A.S.H.V.E. Manual.

WATER RUNS OFF

Like water running off a duck. Lack of moisture prevents fungi growth and all danger of swelling after installation.

FLAME DOESN'T IGNITE

Kimbatts reduce fire hazard and serve as a retardant.

Kimbatts would have been placed on the market several years before they made their initial bow had it not been for instructions to our engineers to "make it non-inflammable, too." Countless experiments were made before a formula was produced that would meet our demands. This insulation is non-inflammable. A blazing blow torch under pressure will char a hole through a batt **without setting it on fire.**

HOURS—NOT DAYS

Home owners are pleasantly surprised with the low labor cost to install Kimbatts.

A CONTRACTOR, A CARPENTER, A HOME-MAKER TESTIFY

Three classes of people are authorities on the cost and labor of installing insulation: building contractors, carpenters, and those home-owners who have invested money in this modern necessity. We asked all three groups what they thought about Kimbatts. Here and on the four following pages are answers typical of their responses.

A CONTRACTOR AFFIRMS

"We have found Kimbatts entirely satisfactory and very nice to work with. Other materials that I have used prior to this time have been very dirty to work with and not so easy to install. We also find building owners are more satisfied with Kimbatts because they cost much less to install over insulated materials that have to be cleated into place."

EDWARD CAMPSHURE (contractor), Appleton, Wis.

A BUILDER SAID . . .

"I particularly appreciate the ease with which Kimbatts can be placed between the studs and can be cut to fit odd-sized and irregular spaces. I find, too, that Kimbatts are fine for filling small cracks around window frames. They poke into place so easily and make such an air-tight job.

"This part of the construction of a residence is too often neglected. No matter whether the most expensive kind of weather stripping is used to make windows tight, if the wind blows in around the frames the economy of weather stripping is entirely lost."

HERMAN C. SCHULTZ, Builder
Menasha, Wis.

"If work is ever fun, then the work of installing Kimbatts is just that! When I'm through with a job, there's no muss for me or the lady of the house to clean up."

The owner of this fine home selected Kimbatts after testing them in competition with other insulating materials. As his letter on the facing page details, his Kimbatts installation more than fulfilled its promise.

A HOME OWNER WROTE . . .

"Mrs. Sackner was delighted with the method of installing Kimbatts, as all the work was done in less than half a day and there was absolutely no dirt, no mess.

"When we insulated with Kimbatts, we noticed a great difference in our upstairs rooms, as the amount of radiation we had been using made the rooms entirely too warm. We have, therefore, shut off about half the radiation and find the rooms very comfortable. There undoubtedly is a great saving in our fuel bills which I will be able to check up and verify later on.

"Your insulation material is so clean and gives such splendid insulating results, that it should recommend itself highly to all home owners and others interested in insulation."

W. E. SACKNER, Grand Rapids, Mich.

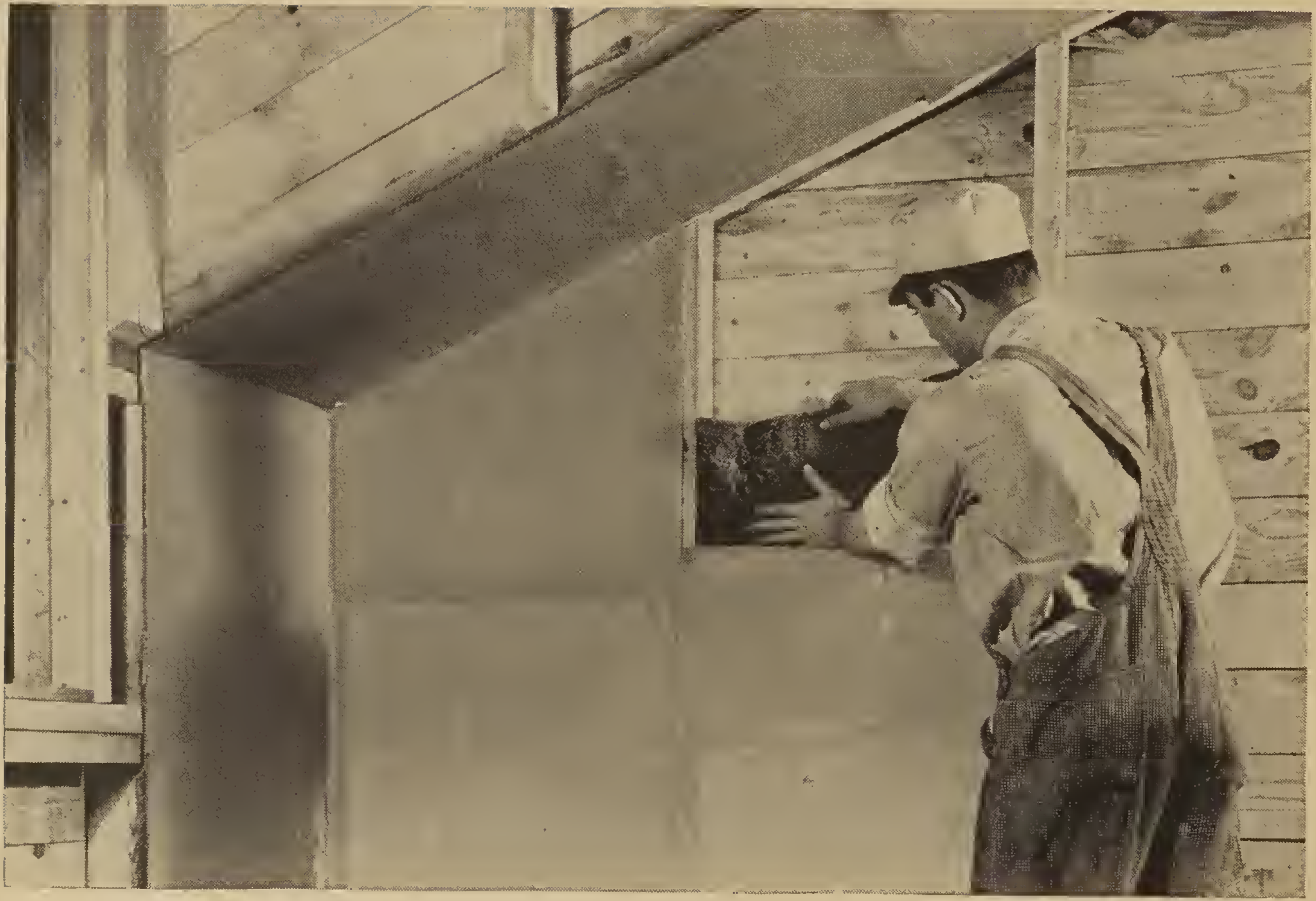
With the thermostat set at 74° all day and 60° all night, it costs only $84.00 a year to heat this fine Wisconsin home with oil, because it's insulated with efficient Kimbatts.

SAVE THE HEAT YOU WASTE

As the most effective insulation in an economical price range, Kimbatts pay for themselves quickly by saving the heat you ordinarily waste . . . the heat that on cold days seeps through your walls and sweeps through your roof. This saving amounts to between 30% and 40% of your annual fuel bill. That there is no question about the saving is attested by the multitude of letters we have received on the subject. The following quotation is typical: "You will recall that when I built my home, I packed it with Kimbatts and installed an air-conditioning and heating system. The engineers for this company guaranteed to heat my home for $130.00, but they hadn't reckoned on the extra efficiency of Kimbatts. Actually it costs only $84.00 to heat my house, though the thermostat is set at 74 degrees all day and 60 degrees all night throughout the winter."

H. M. OSTERTAG

A VERY NEAT JOB



Instead of board, this attic was finished with the empty Kimbatts cartons, held by large-headed roofing nails and seams covered with gummed paper. That's economy.

AN ENGINEER GIVES HIS REASONS

Perhaps the most significant fact pointing to Kimbatts' superiority is the number of engineers, who, with full knowledge of the theory and facts concerning insulation, pick Kimbatts for their own homes. The reasons are given in this quotation from a letter sent us by a man associated with the technical department of the country's outstanding engineering organization: "My home is directly exposed to a prevailing West wind, but we were very comfortable last winter, using only $50.00 worth of hard coal with the thermostat set at 74 degrees day and night because the upper part of my house is insulated with Kimbatts. My reasons for selecting Kimbatts are readily understandable when one studies the tables of insulating values for various types of wall construction. These indicate that the ordinary wood frame-house walls filled with your batts present 2½ times the resistance to heat loss that do the same types of walls with ½-inch insulating board both inside and outside the studs."

W. E. RENNER

WHAT CONVINCES ENGINEERS

The table to which the refrigerating engineer alluded in the foregoing letter is that developed from the findings of leading university laboratories and the U. S. Bureau of Standards. In it, insulators are rated according to their relative conductivities. The conductivity of an insulator means the amount of heat measured in British Thermal Units which will pass through the material per hour per degree of difference in inside and outside temperatures. Naturally, the lower the conductivity of an insulating material, the greater its efficiency. On the facing page this fundamental information and full data on the comparative values of different insulators is given.

INSTALLED THERMAL EFFICIENCY OF TYPICAL TYPES OF INSULATION

WALL CONSTRUCTION
Wood frame; Brick veneer; Frame stucco

Insulation	Coefficient (5)	Heat Flow (6)	Coal Equiv. (7)
Not Insulated	.266	1064	1.92
½" Wall Board (1)	.190	760	1.37
1" Wall Board	.148	592	1.05
½" Blanket (2)	.153	612	1.07
1" Blanket	.119	476	0.86
3⅝" Blown (3)	.0625	250	0.45
Bright Foil	.140	560	1.01
3⅝" KIMBATTS (4)	.055	219	0.39

ATTIC FLOOR CONSTRUCTION
Lath and Plaster on Joists

Insulation	Coefficient (5)	Heat Flow (6)	Coal Equiv. (7)
Not Insulated	.680	2720	4.90
½" Wall Board	.335	1340	2.41
1" Wall Board	.223	890	1.60
½" Blanket	.302	1210	2.18
1" Blanket	.194	778	1.40
3⅝" Blown	.074	296	0.53
Bright Foil	.260	1040	1.87
3⅝" KIMBATTS	.064	256	0.46

1. K = 0.33
2. K = 0.27
3. K = 0.30
4. K = 0.255 (Kimbatts represent Batt Type)
5. Wall heat transfer in B.t.u./hr./° F/Sq. Ft.
6. Expressed in B.t.u./hr./40° Temp. Diff./100 Sq. Ft. wall area.
7. Expressed in tons required per three months (90 days) per 1000 Sq. Ft. to maintain 40° F. Temp. difference at 50% furnace efficiency.

The types of insulation represented above are: (1) Board; (2) Blanket; (3) Blown, or Blown-in; (4) Bright Foil, or Radiant; (5) Batt. The only individual name to appear is Kimbatts representing the Batt. Typical thicknesses and "K" Factors are used for the other insulations. Calculations in above tables obtained by methods used in 1934 A. S. H. V. E. Manual.

YOU CAN AFFORD TO START INSULATING WITH KIMBATTS TODAY!

Now only one more important question about insulating with Kimbatts remains . . . what will it cost you? The exact answer can only be arrived at by accurately figuring *your* house—actually measuring the area you intend to insulate and figuring how many square feet of Kimbatts (at 7½c a square foot) you will require. However, it is practical to visualize for you the approximate cost of insulating. On the next four pages we have reproduced typical examples of houses and estimated on each the approximate cost to insulate with Kimbatts.

IF YOU LIVE IN A ONE-STORY COTTAGE 30 x 18½

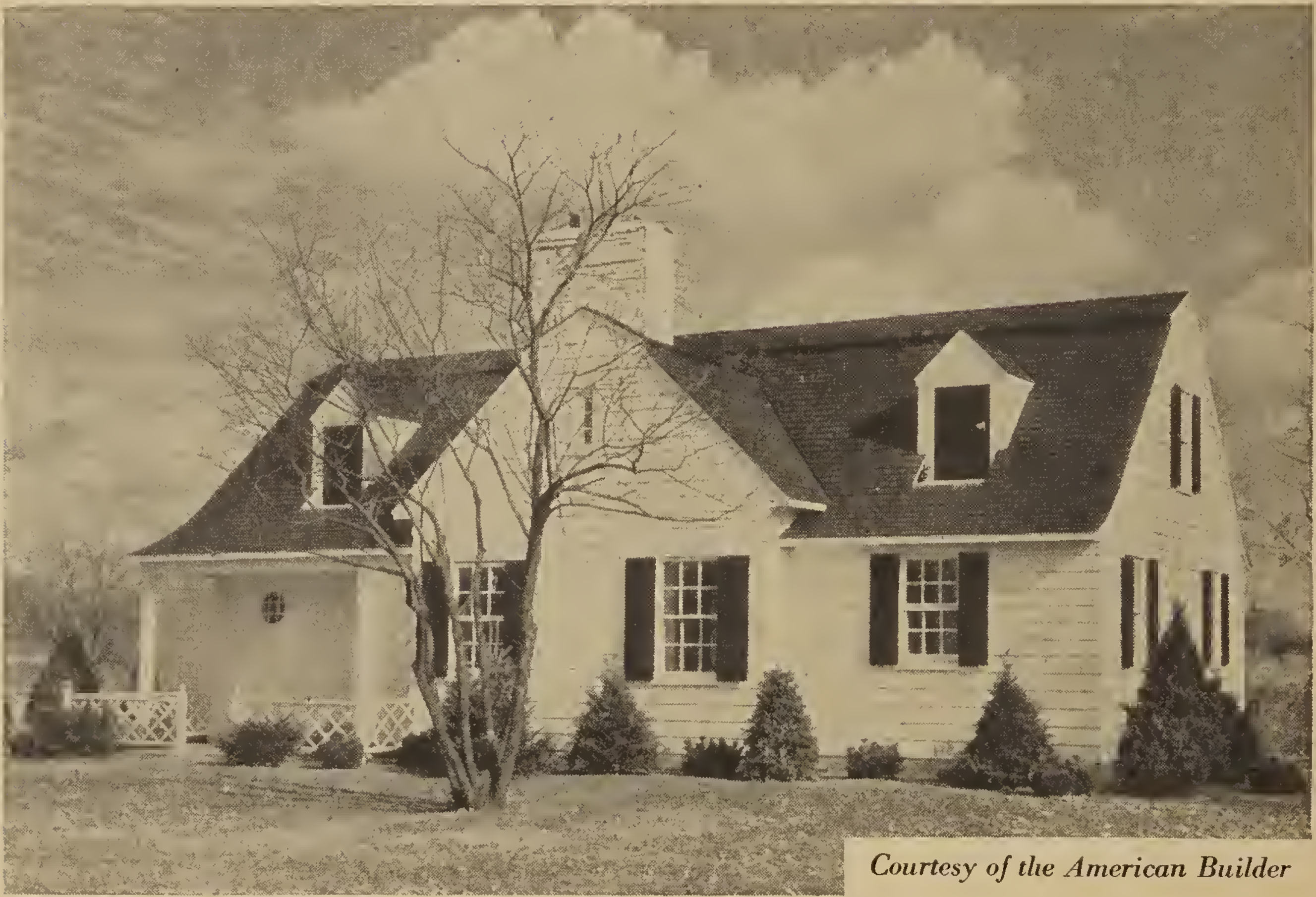
Courtesy of the National Plan Service, Inc.

The owner of this house can save between 30% and 40% of his fuel bill by insulating with Kimbatts.

- *To insulate the whole house with Kimbatts it will cost you approximately $147.00.*
- *To insulate the roof alone it will cost you approximately $80.00.*
- *To insulate the attic floor it will cost you approximately $64.00.*

Estimates do not include labor costs for installing.

IF YOU LIVE IN A TWO-STORY HOUSE 55 x 31



Courtesy of the American Builder

The owner of this house can save between 30% and 40% of his fuel bill by insulating with Kimbatts.

- *To insulate the whole house with Kimbatts will cost you approximately $192.00.*
- *To insulate the roof alone with Kimbatts will cost you approximately $99.00.*

Estimates do not include labor costs for installing.

IF YOU LIVE IN A TWO-STORY HOUSE 57½ x 31½

Courtesy of the American Builder

The owner of this house can save between 30% and 40% of his fuel bill by insulating with Kimbatts.

- *To insulate the whole house with Kimbatts will cost you approximately $272.00.*
- *To insulate the roof alone with Kimbatts will cost you approximately $102.00.*

Estimates do not include labor costs for installing.

IF YOU LIVE IN A TWO-STORY HOUSE 41⅛ x 32¾

Courtesy of the American Builder

The owner of this house can save between 30% and 40% of his fuel bill by insulating with Kimbatts.

- *To insulate the whole house with Kimbatts will cost you approximately $234.00.*
- *To insulate the attic floor alone with Kimbatts will cost you approximately $95.25.*

Estimates do not include labor costs for installing.

To old houses as well as new

KIMBATTS BRING YEAR 'ROUND COMFORT

To enjoy the fuel savings, the warmer winters, the cooler summers that Kimbatts bring you, you don't have to build a new house.

From 50% to 75% of the heat leakage now wasting your fuel escapes through the roof of your house. A layer of Kimbatts in your attic floor will put a stop to this loss. Since it will cost you only a few dollars to insulate your attic floor, there is no investment you could make today which would yield you such great dividends in comfort or actual savings.

With Kimbatts insulation your home will also be much more comfortable in summer. The scorching rays of the sun will be stopped during the day and cooler, restful sleep insured for all of the family at night.

WHERE TO BUY KIMBATTS

In this book we have attempted to picture for you in a brief, simple way exactly what Kimbatts are, how they are installed, and what contributions they will make to your well-being and comfort all year 'round. Still there are, no doubt, many questions in your mind which have gone unanswered. The Kimbatts dealers in your neighborhood who handle and install this most modern of all insulations are equipped through special training and long experience to answer those questions. They are the leading lumber dealers. Call on them. Gladly and without obligation to you they will analyze your individual insulating problem and furnish you with the best and most economical solution to it.

The F.H.A. will help you arrange easy payments to finance the modernization of your home.

PRINTED IN U.S.A.

★ KIMBATTS ★

Building Insulation

AUTHORIZED DEALER

LOCKPORT LUMBER YARDS

FLANDERS BROS.

63 East Ave. LOCKPORT, NEW YORK

YR1—2—10M—12